Amendments to the Claims

This listing of claims will replace all prior versions and listings of the claims in this application.

--7. (Currently amended) A method of inhibiting fusion of a macrophage-tropic primary isolate of HIV-1 to a CD4+ cell susceptible to infection by a macrophage-tropic primary isolate of HIV-1 which comprises contacting the CD4+ cell with an ~~effective amount of an~~ agent which is (1) capable of inhibiting fusion of HeLa-env_{JR-FL} to a PM1 cell ~~a macrophage-tropic primary isolate of HIV-1 to a CD4+ cell susceptible to infection by a macrophage-tropic primary isolate of HIV-1~~, but (2) not capable of inhibiting fusion of HeLa-env_{LAI} to a HeLa-CD4+ cell ~~a T cell-tropic isolate of HIV-1 to a CD4+ cell susceptible to infection by a T cell-tropic isolate of HIV-1~~, so as to thereby ~~inhibiting~~ inhibit the fusion of the macrophage-tropic primary isolate of HIV-1 to the CD4+ cell.--

--8. (Currently amended) The method of claim 7, wherein the agent is determined to be capable of inhibiting fusion of a macrophage-tropic primary isolate of HIV-1 to a CD4+ cell but not capable of inhibiting fusion of a T cell tropic isolate of HIV-1 to a CD4+ cell using a method which comprises:

(a) contacting (i) a ~~first appropriate CD4+~~ PM1 cell, which is labeled with a first dye, with (ii) ~~a~~ HeLa-env_{JR-FL} ~~cell expressing an HIV-1 envelope glycoprotein of the macrophage-tropic primary isolate of HIV-1 on its surface~~, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the ~~CD4+~~ PM1 cell to the HeLa-env_{JR-FL} ~~cell expressing the HIV-1 envelope glycoprotein on its surface~~ in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(b) exposing the product of step (a) to conditions which would result in resonance energy transfer if fusion has occurred; and

(c) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent;

(d) contacting (i) a ~~second appropriate CD4+~~ HeLa-CD4+ cell, which is labeled with a first dye, with (ii) HeLa-env_{LAI} ~~a cell expressing an HIV-1 envelope glycoprotein of a T-cell-tropic isolate of HIV-1 on its surface,~~ which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of ~~the CD4+ cell~~ HeLa-CD4+ to the HeLa-env_{LAI} ~~cell expressing the HIV-1 envelope glycoprotein on its surface~~ in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(e) exposing the product of step (d) to conditions that would result in resonance energy transfer if fusion has occurred;

(f) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent; and

(g) comparing the determination made in step (c) with the determination made in step (f), wherein a decrease in transfer in step (c) but not in step (f) indicates that the agent is capable of specifically inhibiting fusion of the macrophage-tropic primary isolate of HIV-1 to the CD4+ cell, but not capable of specifically inhibiting the fusion of a T cell-tropic isolate of HIV-1 to the CD4+ cell.--

--9. (Previously presented) The method of claim 7, wherein the agent is an antibody.--

Claims 10-12 (Cancelled).

--13. (New) The method of claim 7, wherein the agent is capable of inhibiting fusion of a macrophage-tropic primary isolate of HIV-1 to a CD4+ cell but not capable of inhibiting fusion of a T cell-tropic isolate of HIV-1 to a CD4+ cell in a method which comprises:

(a) contacting (i) a PM1 cell, which is labeled with a first dye, with (ii) HeLa-env_{JR-FL}, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the PM1 cell to the HeLa-env_{JR-FL} in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(b) exposing the product of step (a) to conditions which would result in resonance energy transfer if fusion has occurred; and

(c) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent;

(d) contacting (i) a HeLa-CD4+ cell, which is labeled with a first dye, with (ii) HeLa-env_{LAI}, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of HeLa-CD4+ to the HeLa-env_{LAI} in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(e) exposing the product of step (d) to conditions that would result in resonance energy transfer if fusion has occurred;

(f) determining whether there is a reduction in resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent; and

(g) comparing the determination made in step (c) with the determination made in step (f), wherein a decrease in transfer in

step (c) but not in step (f) indicates that the agent is capable of specifically inhibiting fusion of the macrophage-tropic primary isolate of HIV-1 to the CD4+ cell, but not capable of specifically inhibiting the fusion of a T cell-tropic isolate of HIV-1 to the CD4+ cell.